

**435.5.01 Adjustments**

General Provisions 101 through 150.

## **Section 436—Asphaltic Concrete Curb**

**436.1 General Description**

This work includes constructing asphaltic concrete curbs according to these Specifications. Construct curb that conforms to the lines and grades shown on the Plans or established by the Engineer.

**436.1.01 Definitions**

General Provisions 101 through 150.

**436.1.02 Related References****A. Standard Specifications**

Section 400—Hot Mix Asphaltic Concrete Construction

Section 413—Bituminous Tack Coat

Section 802—Aggregates for Asphaltic Concrete

Section 820—Asphalt Cement

**B. Referenced Documents**

GDT 7

GDT 66

GDT 115

**436.1.03 Submittals**

General Provisions 101 through 150.

**436.2 Materials**

Ensure that materials meet the requirements of Section 802, Section 820, and Section 828.

Use a uniform, homogeneous asphalt mixture of aggregate and bituminous material. A job mix formula is not required; however, base the mixture on an approved design analysis that meets the requirements of either a 4.75 mm mixture or 9.5 mm Superpave mixture (Level A) as described in Section 828 except that testing for moisture susceptibility, GDT 66 and rutting susceptibility, GDT 115, will not be required. The asphalt content for asphaltic concrete curb shall be set 1.0% higher than the optimum asphalt content determined during the mix design analysis. Control the mixture within the mixture control tolerances for the respective mix given in Section 828. Do not continue operation outside the mixture control tolerances.

**436.2.01 Delivery, Storage, and Handling**

General Provisions 101 through 150.

**436.3 Construction Requirements****436.3.01 Personnel**

General Provisions 101 through 150.

**436.3.02 Equipment**

Use equipment that meets the requirements in Section 400 for mixing and transporting the asphaltic concrete.

**A. Self-Propelled Curbing Machine**

For curb construction, use an approved self-propelled curbing machine equipped with:

- A hopper
- A power-driven screw or other device that forces the mixture through a tube and then through a die attached to the tube

Design the mold to produce the desired cross section of the curb. Ensure that the curbing machine can:

- Thrust against the asphalt mixture to eliminate objectionable surface voids as the mixture passes through the mold
- Produce curbing with a uniform texture, shape, and density

Use hand methods adjacent to structures.

### **436.3.03 Preparation**

Prepare the curb foundation as follows:

1. Excavate subgrades for header type curbs to the required depth.
2. Remove and replace soft or unstable material with stable material.
3. Compact and finish the subgrade to 90 percent of the maximum density as determined by GDT 7.
4. Shape the subgrade to the required line, grade, and cross section.
5. When placing the curb on existing pavement, thoroughly remove dirt and objectionable matter from the area receiving the curb.
6. Apply a tack coat at the rate directed by the Engineer to the full width of the curb being placed.

**NOTE: Place sections of curb only after constructing adjoining spillways and drainage outlets.**

### **436.3.04 Fabrication**

General Provisions 101 through 150.

### **436.3.05 Construction**

#### **A. Mixing Asphaltic Concrete**

Ensure that the asphaltic concrete manufacturer meets the requirements of Section 400, as applicable.

#### **B. Placing Curb Material**

When beginning construction, determine the working temperature of the asphaltic mixture to achieve the best results. Do not place curb material on an area where the surface temperature is below 40 °F (4 °C).

When the machine used to lay the asphaltic curb does not give adequate compaction as determined by the Engineer, take corrective measures to compact the finished curb adequately. These measures include, but are not limited to:

- Adjusting the mix
- Loading the machine with additional weight
- Using other corrective measures

#### **C. Observing Tolerance**

If the grade line is uniform, the curb can slump 0.25 in (6 mm) below the specified height.

#### **D. Curing and Protecting the Curb**

Protect the newly laid curb from traffic by using a barricade or other methods until the asphaltic mixture has cooled to air temperature. Once the curb is cool, immediately backfill it.

### **436.3.06 Quality Acceptance**

General Provisions 101 through 150.

### **436.3.07 Contractor Warranty and Maintenance**

Maintenance includes protecting the finished curb until Final Acceptance.

Remove and replace curb or curb sections displaced, destroyed, or damaged from Contractor negligence at no additional cost to the Department.

## **436.4 Measurement**

Asphaltic concrete curb complete in place and accepted is measured in linear feet (meters) along the face of the curb.

Tack coat is measured and paid for according to Section 413.

**436.4.01 Limits**

General Provisions 101 through 150.

**436.5 Payment**

Asphaltic concrete curb measured for payment will be paid for at the Contract Unit Price per linear foot (meter) for each curb height. Payment is full compensation for furnishing materials, including bituminous material, preparing the subgrade or pavement surfaces, cleaning, hauling, mixing, placing and replacing if required, and maintaining the curb to complete the Item.

Payment will be made under:

Item No. 436	Asphaltic concrete curb ___ in(mm)	Per linear foot (meter)
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**436.5.01 Adjustments**

General Provisions 101 through 150.

## **Section 437—Granite Curb**

**437.1 General Description**

This work includes furnishing and installing granite curb including excavating, and backfilling. Construct curb that conforms to the lines and grades shown on the Plans or established by the Engineer.

**437.1.01 Definitions**

General Provisions 101 through 150.

**437.1.02 Related References****A. Standard Specifications**

Section 805—Rip Rap and Curbing Stone

**B. Referenced Documents**

General Provisions 101 through 150.

**437.1.03 Submittals**

General Provisions 101 through 150.

**437.2 Materials**

Use granite curbing that meets the requirements of Subsection 805.2.02.

Ensure that Type A curbing with dressed surfaces is free from drill marks or other artificial blemishes.

**437.2.01 Delivery, Storage, and Handling**

General Provisions 101 through 150.

**437.3 Construction Requirements****437.3.01 Personnel**

General Provisions 101 through 150.

**437.3.02 Equipment**

General Provisions 101 through 150.

**437.3.03 Preparation**

Prepare and excavate the foundation as follows:

1. Thoroughly tamp the bottom of the trench. Remove soft or yielding material to the depth ordered by the Engineer.
2. Refill the trench with stable material and tamp the material in 4 in (100 mm) layers or less.
3. Place the granite curb on a dry, firm foundation.